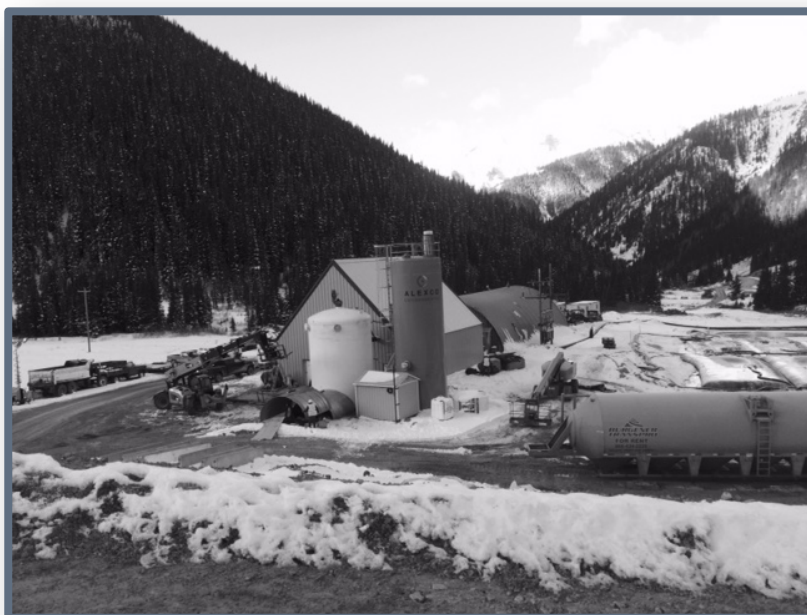


**SITUATION REPORT  
INCIDENT COMMAND POST GOLD KING  
GOLD KING MINE RELEASE INCIDENT  
U.S. ENVIRONMENTAL PROTECTION AGENCY**



**View of completed Gold King Mine treatment system and building at Gladstone.**

**Subject:** EXECSUM / SITREP #50  
Gold King Mine Release Incident  
San Juan County, Colorado  
Latitude: 37.8945 Longitude: -107.6384

**From:** Situation Unit, Gold King Mine Response

**Date:** 19 November 2015

**Reporting Period:** 0700 10 November 2015 through 0700 17 November 2015

**Website:** [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine)



**For Internal Use Only**

**EXECUTIVE SUMMARY**

***Situation Summary***

EPA Region 8 is managing the Gold King Mine Release. Ongoing field activities include water treatment and winterization activities at the Gold King Mine/Gladstone site.

***Highlights, Key Updates / Changes***

**Mine Operations- Completed Activities**

- Added an additional tier to the Geotube sedimentation area to increase system capacity.
- Completed concrete pour for steel sets inside Gold King Mine.

**Mine Operations- Planned Activities**

A partial list of additional planned activities at the GKM site include:

- GKM Portal
  - Additional Grading Activities
  - Security Gate Installation
  - Removal of rental piping as soon as feasible following concrete work.
  - Water from the mine is being drained via gravity down to the Gladstone ponds.
- Upper Gladstone Area
  - Additional drainage and reclamation activities
  - Installation of additional fencing and signage at Gladstone Ponds (ongoing).
  - Installation of run on controls along east side of Gladstone ponds (ongoing).

***Objectives***

- Ensure health and safety of the public and responders.
- Continue private water deliveries to homes with Primary MCL Exceedances.
- Continue coordination with federal, state, tribal and local stakeholders.

***Command Emphasis***

For this operational period, the command emphasis is:

- Safety of responders and the public
- Visitors to the mine site are required to go through a safety briefing. See Mine Site Safety Plan.

The metrics provided in this Situation Report represent quantities reported for work completed from 0700 10 November 2015 through 0700 17 November 2015. Highlighted text and metrics represent changes from previous SITREP. Press releases are presented in Attachment 1.



## 1.0 BACKGROUND

The Gold King Mine (GKM) near Silverton, Colorado is an historic gold mine at an elevation of approximately 11,300 feet above mean sea level. The mine discharge includes acidic mine drainage that is a contributor of heavy metals into the Cement Creek drainage of the Animas River watershed. The GKM workings have been inaccessible since 1995 when the mine portal collapsed.

On 5 August 2015, up to three million gallons (estimated) of water containing sediment and dissolved metals was suddenly released from the Gold King Mine adit. This water discharged into Cement Creek that feeds into the Animas River, and eventually flows into the San Juan River.

US EPA Region 8 continues to assess and mitigate effects from the release.

## 2.0 OPERATIONS

### 2.1 Mine Operations

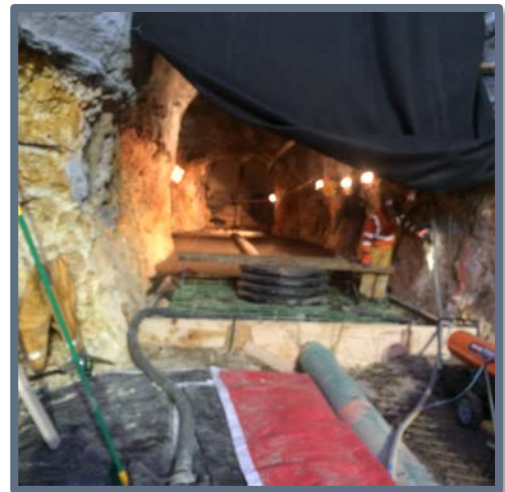
#### 2.1.1 Current Mine Operations Summary

- Added an additional tier to the Geotube sedimentation area to increase system capacity.
- Completed concrete pour for steel sets inside Gold King Mine.

#### 2.1.2 Mine Operations- Planned Activities

A partial list of additional planned activities at the GKM site include:

- GKM Portal
  - Additional Grading Activities
  - Security Gate Installation
  - Removal of rental piping as soon as feasible following concrete work.
  - Water from the mine is being drained via gravity down to the Gladstone ponds.
- Upper Gladstone Area
  - Additional drainage and reclamation activities
  - Installation of additional fencing and signage at Gladstone Ponds (ongoing).
  - Installation of run on controls along east side of Gladstone ponds (ongoing).



Ongoing concrete work inside Gold King Mine.

### 2.2 River Sampling

The table below summarizes operational activities for surface water and sediment sampling during the response.



Sample quantities are based on the SCRIBE database, and include field samples and quality assurance/quality control (QA/QC) samples.

Table 1- Operations River Sampling Summary		
Matrix	U.S. EPA Region	Cumulative
Surface Water Samples	8	739
	6	561
	9	310
	<b>Total</b>	<b>1,610</b>
Sediment Samples	8	349
	6	553
	9	256
	<b>Total</b>	<b>1,158</b>

### 2.3 Private Well Sampling

U.S. EPA has collected and analyzed samples from drinking water wells located near the Animas River and San Juan River. There has been no sampling of private drinking water wells in U.S. EPA Region 9. The table below provides a summary of private drinking water well sampling completed during the response.

Table 2- Private Drinking Water Well Sampling Summary		
Matrix	U.S. EPA Region	Cumulative
Private Drinking Water Well Samples Collected (from SCRIBE, includes QA/QC samples)	8	449
	6	309

Notes: Some residents received multiple results letters  
Some residential sampling included surface water and/or sediment sampling.

Table 3 - Summary of Wells with MCL Exceedances		
Matrix	U.S. EPA Region	Cumulative
Wells containing contaminant concentrations above MCLs during second sampling event	8	4
	6	1*

\*Note: One well in Region 6 exceeded the MCL for lead and after further assessment by the State of New Mexico and the U.S. EPA, it was determined that the exceedance was not related to the GKM incident.

### 2.4 Public Support Activities

U.S. EPA continues to coordinate and deliver bottled drinking water to **four** residences in Region 8.



The table below summarizes other public support activities completed on the response to date.

<b>Table 4 - Completed Public Support (Cumulative)</b>				
<b>Activity</b>	<b>U.S. EPA Region</b>	<b>Qty. (gal)</b>	<b>Qty. (hay bales)</b>	<b>Qty. (salt blocks)</b>
Potable Water Deliveries	8	105,600		
Livestock / Agricultural Water Deliveries	8	133,770		
	6	1,104,990		
	9	218,400		
	BIA	975,888		
Agricultural Food Deliveries	6		244	
	9		8,448	
Agricultural Salt Block Deliveries	8			500

### 3.0 PLANNING

#### 3.1 Situation Unit

The Situation unit continues to produce the weekly Situation Reports documenting ongoing activities at the Gold King Mine site.

#### 3.2 Resources

The table below summarizes staffing numbers for the federal entities and agencies active at the Gold King Mine Site.

<b>Table 5 - Personnel On-Site (as of 13 November 2015)</b>		
<b>Location</b>	<b>Agency / Entity</b>	<b>Number of Personnel</b>
Mine Operations	U.S. EPA	2
	U.S. Coast Guard	2
	U.S. EPA Contractors (Other-Daily average)	26
	Visitors	0
<b>Total</b>		<b>30</b>

USCG = U.S. Coast Guard.

### 4.0 FINANCE

#### 4.1 Estimated Response Costs to Date

The table below summarizes estimated costs for the response.

<b>Table 6 - Estimated Response Costs Reported as of 16 November 2015</b>					
<b>U.S. EPA Region</b>	<b>U.S. EPA Cumulative Expended Payroll</b>	<b>U.S. EPA Cumulative Expended Travel</b>	<b>U.S. EPA Cumulative Other Charges</b>	<b>U.S. EPA Cumulative Contractors Cost</b>	<b>Total Cumulative Costs</b>
8	\$2,063,313	\$594,430	\$46,109	\$8,064,115	\$10,767,967
6	\$667,181	\$120,076	\$12,989	\$2,742,514	\$3,542,760
9	\$243,459	\$22,760	\$0	\$2,649,871	\$2,916,090
<b>Total</b>	<b>\$2,973,953</b>	<b>\$737,266</b>	<b>\$59,098</b>	<b>\$13,456,500</b>	<b>\$17,226,817</b>



#### 4.2 Estimated Burn Rates

The table below summarizes current estimated burn rates for the response.

Table 7 - Estimated Daily Burn Rates as of 16 November 2015	
U.S. EPA Region	Estimated Average Daily Burn Rate
8	\$20,000
6	\$-
9	\$8,920
Total	\$28,920

#### 5.0 SAFETY

Safety did not report any recordable injuries or illnesses during this operational period.

#### 6.0 PUBLIC INFORMATION

##### 6.1 Community Engagements, Public Events, and VIP/Congressional Visits

The table below summarizes recently completed site visits and public events.

Table 8 - Completed Site Visits and Public Events Summary	
Planned Event	Anticipated Date
Animas River Stakeholders Meeting	17 November 2015

The table below summarizes known site visits and public events scheduled for the next 14 days.

Table 9 - Anticipated Site Visits and Public Events Summary	
Planned Event	Anticipated Date
None Reported	N/A

##### 6.2 Call Center / Notification Plan

U.S. EPA Headquarters continues to operate a national call center (844-607-9700).

Personnel at the EPA Region 8 call-in number are now managing the Gold King Mine Stakeholder Alert and Notification Plan.

#### 7.0 ENTITIES PARTICIPATING IN RESPONSE

The list below summarizes Federal, regional, local and other entities participating in the response.

U.S. EPA  
U.S. Coast Guard (USCG)  
U.S. Geological Survey (USGS)  
U.S. Army Corps of Engineers (USACE)  
U.S. Bureau of Reclamation (USBOR)  
U.S. Fish and Wildlife Services (USFWS)  
Colorado Office of Emergency Management (OEM)



Colorado Department of Public Health and Environment (CDPHE)  
New Mexico Environment Department (NMED)  
New Mexico (NM) Department of Health  
NM Office of the State Engineer  
NM Department of Game and Fish  
State of Utah  
State of Arizona  
City of Durango  
La Plata County  
San Juan County  
San Juan Basin Health Department  
County of San Juan – New Mexico  
Southern Ute Indian Tribe (SUIT)  
Navajo Nation

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#### **9.0 SOURCE OF ADDITIONAL INFORMATION**

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For additional information, refer to [www.epa.gov/goldkingmine](http://www.epa.gov/goldkingmine).



**ATTACHMENT 1**  
**PRESS RELEASES**



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PRESS RELEASE #1

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## Gold King Mine Data, November 16, 2015

[Free viewers may be needed to access information linked on this page.](#)

### [Data from Gold King Mine Response](#)

Surface water and sediment concentrations are now below recreational screening levels. The river system as a whole is being maintained at pre-event conditions.

It is important to keep in mind that metal concentrations in water and sediment may fluctuate. Fluctuations occur because of weather and other events that change water flow rates or volume. They can also occur if sediments are accumulating at a higher than normal rate at a particular site, before being washed away by the next high water event.

As the response to the mine release transitions to long-term evaluations, EPA will continue to monitor for any abnormal occurrences of metal concentration exceedances of risk-based screening levels. This data submission presents data for sediment samples collected on 10/5, 10/8, and 10/12 from the San Juan River.

EPA has reviewed the data which includes comparison to screening levels for exposure during recreational use. The metal concentrations of the samples are below sediment/soil recreational screening levels, and are being maintained at pre-event conditions. Based on previous monitoring events it has been shown that metal concentrations may fluctuate from time to time because of water surges due to heavy rains or other events that may change the water flow rates or volume.

- Open or download the data file: [Region 9 Sediment Summary Table 1005082015 \(XLSX\)](#)(1 pg, 38 K)
- Open or download the data file: [Region 9 Sediment Summary Table 10122015 \(XLSX\)](#)(1 pg, 24 K)

This data submission presents data for surface water samples collected on 10/5, 10/8, and 10/12 from the San Juan River.

EPA has reviewed the data which includes comparison to screening levels for exposure during recreational use. The metal concentrations of the samples are below surface water recreational screening levels. Surface water sample results from a September 24 sampling event along the San Juan river exhibited an increase in metal concentrations relative to pre-event conditions, with some metal concentrations above the recreational screening values, presumably due to a rain event. The September 28 surface water results indicate the metal concentrations to be below the recreational screening values, but still somewhat elevated relative to pre-event conditions. The September 30 surface water results indicate the metal concentrations have returned to pre-event conditions.

- Open or download the data file: [Region 9 Surface Water Summary Table 1005082015 \(XLSX\)](#)
- Open or download the data file: [Region 9 Surface Water Summary Table 10292015 \(XLSX\)](#)

[Contact Us](#) to ask a question, provide feedback, or report a problem.